

Pre-Service Teachers' Perceptions of Instructors' Teaching Skills

Hasan Huseyin SAHAN¹

¹ The Faculty of Necatibey Education, Department of Science Education, Balikesir University, Balikesir, Turkey
Correspondence: Hasan Huseyin SAHAN, The Faculty of Necatibey Education, Department of Science Education, Balikesir University, Balikesir, Turkey. Tel: 90-266-241-2762. E-mail: hasansahan@windowslive.com

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Abstract

The purpose of this study was to investigate the perceptions of pre-service teachers attending the pedagogical formation program offered by Balikesir University Necatibey Faculty of Education pertaining to instructors' teaching skills. A total of 220 pre-service teachers participated in the study. The data were collected by "Perceptions of Teaching Skills Scale" (PTSS), developed by the researcher. A three-way ANOVA was used to test whether pre-service teachers' perceptions correlate significantly with their gender and major, and the subject-area of the instructors they evaluated. The results of the study showed that, according to the pre-service teachers' perceptions, instructors "frequently" demonstrated behaviors indicative of teaching skills. Pedagogues and subject teachers showed similarity in the frequency of display of general teacher behaviors as well as behaviors belonging to the warm-up, development, and closure stages of a lesson. However, they displayed a higher rate of frequency than field instructors in the mentioned behaviors. The independent effect of *gender* was a determining factor in pre-service teachers' perceptions regarding general teacher behaviors and behaviors in the warm-up, development, and closure stages of a lesson. On the other hand, the independent effect of *major* was a determining factor only in pre-service teachers' perceptions of the behaviors in the warm-up stage. The research revealed that the *gender*field* common effect affects pre-service teachers' perceptions of general teacher behaviors, while the *field*major* common effect affects both general teacher behaviors and behaviors in the warm-up stage. The results also indicated that *gender*field* common effect and *field*major* common effect mutually affect each other.

Keywords: pre-service teachers' perceptions, instructor evaluation, teaching skills

1. Introduction

With the rapid developments in science and technology, philosophies and practices in the field of education have been undergoing dramatic changes. Modern educational systems aim at educating individuals who can research, question, think critically, solve problems, learn, adapt, learn to learn, produce knowledge, benefit from technology, think, express opinions clearly, work on teams, and create.

To enable individuals to acquire the target properties, well-planned educational programs and well-trained teachers are needed to implement these programs. Although philosophies, approaches, and practices adopted in education tend to change the role of the teacher, they have never undermined it. Indeed, teachers hold a major responsibility in training qualified workforce essential for the welfare of a country, preparing individuals for community life (Özden, 1999), and securing the quality of all educational levels from primary to tertiary education (Gökçe, 2002).

The important role teachers have in educational systems requires teachers to be equipped with certain knowledge and skills. Teacher quality is a complicated concept (Heck, 2009). Although qualities of teachers are categorized in various ways in the literature (Ausubel & Robinson, 1969; Demirel, 1999; Şen & Erişen, 2002; Çelikten, Şanal, & Yeni, 2005), it is critical to note that these qualities should be regarded as a whole, with each having complementary features (Seferoğlu, 2004). At this point, teacher qualities can be classified into two: general teacher behaviors and teaching skills. Some general teacher qualities are the ability to consider individual differences, set an example for the students, value and respect students, give the students a central place in the learning process, guide them, plan the lesson effectively, and implement it with flexibility, use the class time

efficiently, be knowledgeable about the subject field, confident, and willing to change and improve (Açıkgöz, 1998; Bilen, 2006; Sönmez, 2008; Özçelik, 2010; Demirel, 2011; Borich, 2014).

On the other hand, teaching skills, which refer to teachers' setting and arrangement of the learning environment to achieve the set objectives (Joyce, Weil, & Calhoun, 2004), can be analyzed within the framework of the warm-up, development, and closure phases of class time. For an effective learning process to take place, a teacher should make an interesting start to the class and attract attention, inform the students of the learning objectives, motivate and encourage students to learn, as well as remind them of the previous lessons to help them make connections to new learning experiences. The teacher should also provide clear, comprehensible, and accurate instructions, give appropriate and clear answers to students' questions, use the classroom space effectively, be lively and dynamic while teaching, carry out reinforcement activities in line with his or her teaching principles, give timely, effective, and accurate feedback, enrich the learning experiences, make knowledge concrete through vivid and accurate examples, make use of teaching materials and tools, and provide the students with opportunities to structure knowledge. Teaching skills pertaining to the closure phase of the class are summarizing the lesson, signaling the content of the following class, helping students transfer what they have learned to different fields, and identify and compensate for the unachieved objectives (Açıkgöz, 1990; Bilen, 2006; Sönmez, 2008; Özçelik, 2010; Demirel, 2011; Ada & Baysal, 2013; Borich, 2014). Just as these competencies apply to all teachers, they are valid for academics, or instructor, who has the responsibility of teaching among other responsibilities.

An analysis of the ideal qualities of instructors shows that they are basically responsible for being scientists and producing science, yet they are also expected to possess teacher qualities. While Açıkgöz (1990) categorizes instructors' qualities in terms of teacher-student relations, classroom management, classroom behaviors, and personality traits, Akgöl (1994) does so in terms of personality, profession, measurement and evaluation, and human relations. In yet another study carried out by Uzel and Özdemir (2010), pre-service teachers identified ideal instructor qualities with teaching skills related to instruction, classroom management, and measurement-evaluation.

Possessing teaching skills is even more important for instructors teaching at faculties which train teachers (Şen & Erişen, 2002) because instructor behaviors set an example to pre-service teachers that undergo training (Köseoğlu, 1994). Therefore, especially instructors whose job is to train teachers in teacher training institutions should themselves possess the teaching skills they teach within the scope of the pedagogical formation program.

Instructor qualities should be evaluated in various ways. For example, they can evaluate themselves, or they can be evaluated by students, administrators, inspectors, or colleagues (Dalgıç, 2010). The most commonly used method of evaluating instructors is the one done by students (Ergün et al., 1999). Similarly, pre-service teachers' evaluation of instructors is an effective and widespread method used for the evaluation of an educational institution at university level (Seldin, 1984). Student evaluation yields valid and reliable data especially when it focuses on observable teacher behaviors without any influence of several other variables. Thus, graduate students can have a role as decision makers in the process of evaluating service quality (Brown & Koenig, 1993), and students' evaluation of quality at higher education in terms of consumer satisfaction can be regarded as the optimum way of ensuring quality (Ramsden, 1991).

It is believed that students provide highly reliable and valid data in relation to in-class performance of instructors since pre-service teachers have the chance of observing them every day, and that pre-service teachers' evaluation of instructors' qualities contributes to the development of instructors (Centra, 1993; Miller, 1998). In the related literature, there are numerous researchers pointing to the importance, value, and reliability of evaluating instructors based on students' opinions (Swanson & Sisson, 1971; Cohen, 1980; Aleamoni, 1981; Murray, 1983; Arubayi, 1987). One of these studies claim that teachers prefer students for performance evaluation as they know the teachers well (Koçak, 2006).

It seems possible to divide the research literature on evaluation of instructors' skills in two groups. The former includes scale development studies (Dalgıç, 2010), and the latter includes studies aiming to evaluate the instructors in terms of properties of an ideal instructor (personal features, communication skills, teaching skills, class management, subject area knowledge and measurement and evaluation) (Açıkgöz, 1990; Akgül, 1994; Ergün et al., 1999; Şen & Erişen, 2002; Watthaisong, 2003; Erdem & Sarıtaş, 2006; Parpala Lindblom-Ylänne, 2007; Özdemir & Uzel, 2010; Gül, 2010). Sürel (2010) contributes to the related literature with his research where he compares teaching styles of the instructors working in different faculties. Investigating the teaching skills of instructors at teacher training faculties based on certain variables has potential to make a contribution to the training of more qualified teachers.

Within this framework, the evaluation of instructors at teacher training institutions by pre-service teachers was found to be a necessity. It is believed that this study will be of significance as it will enable instructors to know and evaluate themselves with respect to effective teaching skills, and direct new studies on this topic. In the related literature, there are various studies on the assessment of *qualities* of instructors at teacher training institutions based on students' opinions; however, no study on the evaluation of instructors' *teaching skills* has been encountered, which is another factor that makes this study significant. Moreover, this study is important in that it helps discover pre-service teachers' expectations of the instructors that educate them as regards knowledge, skills, attitudes, and behaviors.

With the aim of determining pre-service teachers' perceptions of instructors' teaching skills, the present study sought answers the following research questions:

- 1) According to pre-service teachers, to what extent do instructors display behaviors indicative of teaching skills?
- 2) How do pre-service teachers' perceptions of the extent to which instructors display behaviors indicative of teaching skills relate with
 - a) their gender,
 - b) their major, and
 - c) the subject-field of the instructor?
- 3) Do pre-service teachers' gender and major, and the subject field of instructors affect pre-service teachers' perceptions regarding instructors' levels of displaying teaching behaviors?

2. Methods

2.1 Design

The descriptive method was used in this study to determine pre-service teachers' perceptions regarding the teaching skills of instructors from various subject fields. The relationship between pre-service teachers' perceptions and their gender, major, and the subject field of their instructors was examined by utilizing observational data.

2.2 Participants

Pre-service teachers attending pedagogical formation training take courses from two different programs: 1) courses on the content knowledge of the teaching profession during the course of education in the faculty of arts and sciences; 2) educational sciences and content teaching courses related to professional knowledge and skills from the faculty of educational sciences. Thus, the pre-service teachers attending these courses should be regarded as the most important source of data in evaluating comparatively and in a combined way the three groups of instructors (subject-teacher trainers, field instructors, and pedagogogs), who are influential in their acquisition of the teaching skills they need.

The study group of the research was comprised of randomly selected 220 pre-service teachers who were graduates of different fields of subject within the arts and science faculty and who were attending the pedagogical formation program offered by the faculty of education. A total of 60 participants were male (27.3%), while 160 (72.7%) were female. Of the pre-service teachers, 91 (41.4%) were from the social sciences field (Turkish language and literature, history, and geography), and 129 (58.6%) were from the fields of science and mathematics (mathematics, physics, chemistry, and biology).

2.3 Data Collection Tool

The data of the study were collected by the "Perceptions of Teaching Skills Scale" (PTSS) (Şahan, 2016). There are 28 items on the scale. The items in the scale were established with a five point Likert scale. The pre-service teachers' perceptions regarding the frequency of their instructors' behaviors reflecting their teaching skills were classified as 1)-"Never, 2)-"Seldom", 3)-"Sometimes", 4)-"Frequently" and 5)-"Always". When the items of the factors were examined at the end of this study, subscales were produced and named accordingly; the first factor was named as "general teacher behaviors" (item total correlation coefficient: 0.22-0.60, inter-item correlation coefficient: 0.50-0.55). The second factor was named as "warm-up" (item total correlation coefficient: 0.44-0.52, inter-item correlation coefficient: 0.55-0.65). The third was named as "development" (item total correlation coefficient: 0.46-0.69, inter-item correlation coefficient: 0.23-0.63). The fourth factor was named as "closure" (item total correlation coefficient: 0.52-0.64, inter-item correlation coefficient: 0.37-0.59). The "general teacher behaviors" subscale, which was the first factor, consisted of 11 items. The "warm-up stage behaviors" subscale,

which was the second factor, consisted of 4 items. The “development stage behaviors” subscale, which was the third factor, consisted of 9 items. And the “closure stage behavior” subscale, which was the fourth factor, consisted of 4 items. For the reliability of the scale, the Cronbach Alpha coefficient, or the internal consistency values, were examined. A Cronbach Alpha coefficient of above .70 is regarded to be sufficient (Büyüköztürk, 2008). The values obtained for all factors, namely “general teacher behaviors” (Cronbach Alpha; .87), “warm-up stage behaviors” subscale (Cronbach Alpha; .80), “development stage behaviors” (Cronbach Alpha; .86) and “closure stage behaviors” (Cronbach Alpha; .79), indicate that the internal consistency of the scale is high, thus making it highly reliable.

The Confirmatory Factor Analysis (CFA) aims to examine the extent to which the data collected confirms the previously determined or devised structure. Numerous fit indices are utilized to determine the proficiency of the model to be tested in CFA. As fit indices have strengths and weaknesses in assessing the fit between the theoretical model and the actual data, it is suggested that more than one fit index be used to determine the fit of a model (Cole, 1987; Sümer, 2000). In the present study, the Chi-Square Goodness Test, Goodness of Fit Index (GFI), Comparative Fit Index (CFI), Non-Normed Fit Index (NNFI) and Root Mean Square Error of Approximation (RMSEA) values were utilized. When the values for Goodness of Fit indices (GFI, CFI, NNFI) are above .90 and close to 1, the fit between the data and the model is considered to be a perfect fit. An RMSEA value of below .08 indicates a fit between the model and the data (Anderson & Gerbing, 1984; Kline, 1994; Hu & Bentler, 1998; Byrne, 2001).

In the development of the scale, which aimed to identify the pre-service teachers’ perceptions regarding the teaching skills of the instructors from three different subject fields, first CFA was conducted for each of the instructor groups, namely the field instructors, subject-teacher trainers, and pedagogs. Subsequently, the items that were appropriate for all three groups were examined to see whether they yielded similar factor loadings in all the groups. Polychoric correlations matrices and Robust Diagonally Weighted Least Squares (DWLS) method of estimate were used in the confirmatory factor analysis (Jöreskog & Sörbom, 2006).

Measurement invariance across the three groups was examined by constraining all three factor loadings to be equal across the groups. The adjusted χ^2 difference test between the constrained and unconstrained model demonstrated that the factor loadings were equivalent across the three groups ($\Delta\chi^2(124)=80.77, P=0.99$). The results suggest that items have similar factor loadings regardless of the type of instructors being evaluated. These results can be used as proof of the usability of the scale.

2.4 Data Collection, Analysis and Interpretation

The “Perceptions of Teaching Skills Scale” (PTSS), constructed to determine the pre-service teachers’ perceptions of instructors’ teaching skills, was administered to 220 pre-service teachers participating in the study at the end of the pedagogical formation course. Pre-service teachers evaluated the instructors separately according to their fields, and they stated an average opinion by considering the instructors of all fields.

Arithmetic average and standard deviation values were utilized in determining the extent to which instructors possessed effective teacher qualities based on the perceptions of the pre-service teachers. The scores reflecting the opinions of the pre-service teachers were interpreted by comparing them to the defined score intervals. The scale used was based on a five point scale from 1 to 5 with four intervals (4:5=0.8) of 0.8 (1-1.8 “Never”, 1.8-2.6 “Seldom”, 2.6-3.4 “Sometimes”, 3.4-4.2 “Frequently”, and 4.2-5.0 “Always”). During interpretation, the opinions closer to border values were counted in the upper interval. Whether there was a significant difference between pre-service teachers’ perceptions of the extent to which their instructors possessed effective teaching skills in terms of gender, major and the subject field of the instructor they evaluated was tested using Three-way ANOVA. In instances where there was a statistically significant variance, the Bonferroni multiple comparison test was used to determine the source of the variance. In the interpretation of instances of combined effects, profile plots of means were used.

3. Results

The descriptive statistics regarding pre-service teachers’ perceptions of their instructors’ teaching skills are presented in Table 1.

Table 1. Descriptive statistics regarding pre-service teachers' perceptions of instructors' teaching skills

Variables		Teaching Skills			
		General	Warm-up	Development	Closure
		\bar{X} (sd)	\bar{X} (sd)	\bar{X} (sd)	\bar{X} (sd)
Gender	Male	3.4 (9.30)	3.4 (3.42)	3.5 (7.96)	3.4 (3.74)
	Female	3.7 (7.45)	3.5 (3.60)	3.7 (7.10)	3.5 (3.87)
Major	Social	3.7 (8.94)	3.5 (3.52)	3.6 (7.51)	3.5 (3.76)
	Maths-Sciences	3.6 (7.46)	3.4 (3.58)	3.6 (7.31)	3.4 (3.90)
Field	Pedagog	3.8 (7.77)	3.7 (3.58)	3.8 (6.79)	3.7 (3.54)
	Subject Teacher Trainer	3.7 (7.29)	3.6 (3.46)	3.7 (6.91)	3.6 (3.62)
	Field Instructor	3.4 (8.44)	3.1 (3.37)	3.3 (7.71)	3.2 (3.89)

As can be seen in Table 1, female pre-service teachers, when compared to males, and pre-service teachers majoring in social sciences, when compared to those majoring in maths and sciences, hold more positive perceptions. According to the pre-service teachers' perceptions, pedagogs and subject teacher trainers display close frequency rates of behaviors indicative of teaching skills. On the other hand, field instructors display general teacher behaviors "frequently" ($\bar{x}=3.4$), and the behaviors in the stages of warm-up ($\bar{x}=3.1$), development ($\bar{x}=3.3$) and closure "sometimes" ($\bar{x}=3.2$). Pre-service teachers' perceptions of the teaching skills of pedagogs and subject teacher trainers, when compared to those of the field instructors, seem to be more positive. Pedagogs' and subject-teacher trainers' displaying teaching behaviors more frequently than field instructors can be regarded as an expected outcome due to their field of work.

Table 2. Anova results of pre-service teachers' perceptions of general teacher behaviors regarding gender, major, and the instructors' subject field

Source	Sum of Squares	Mean Square	df	F	p	Partial Eta Squared
Corrected Model	4832.323	439.302	11	7.406	.001	.112
Intercept	801458.385	801458.385	1	13512.059	.001	.954
Gender	1209.291	1209.291	1	20.388	.001*	.031
Field	2563.887	1281.943	2	21.613	.001*	.063
Major	32.255	32.255	1	.544	.461	.001
Gender*Field	360.985	180.492	2	3.043	.048*	.009
Gender*Major	26.311	26.311	1	.444	.506	.001
Field*Major	472.138	236.069	2	3.980	.019*	.012
Gender*Field*Major	71.504	35.752	2	.603	.548	.002
Error	38435.671	59.314	648			

*p<.05.

Table 2 demonstrates a significant difference, as regards gender, in the perceptions of pre-service teachers regarding instructors' general teacher behaviors ($F(1,648)=20.39$, $p=.001$, $\eta^2=.031$). Female pre-service teachers held more positive perceptions than males regarding instructors' tendencies to display general teacher behaviors. Similarly, a significant variance was observed between pre-service teachers' perceptions with respect to the field of the instructor they evaluated ($F(2,648)=21.61$, $p=.001$, $\eta^2=.063$). This variance was in favor of pedagogs and subject teacher trainers, as opposed to field instructors. On the other hand, no significant variance was found in pre-service teachers' perceptions of pedagogs and field instructors. It can be deduced that the skills that pedagogs and field instructors need to cultivate in pre-service teachers reflect onto their behaviors based on

their field of work. Given that the independent effects of gender and field are significant, the gender of pre-service teachers and the subject fields of the instructors evaluated are determining factors in pre-service teachers' perceptions of their instructors' tendencies to display general teacher behaviors indicative of teaching skills. As there is no significant variance in pre-service teachers' perceptions by major ($p=.461$), it can be said that pre-service teachers majoring in social sciences and those majoring in maths and sciences hold similar perceptions.

Table 2 reveals that the interaction effect of gender* field on pre-service teachers' perceptions of instructors' tendencies to display general teacher behaviors is significant ($F(2,648)=3.04$, $p=.048$, $\eta^2=.009$). Even though female pre-service teachers' perceptions of field instructors and pedagogs are more positive, no significant variance was found between the two groups' (male and female) perceptions of subject teacher trainers. In addition, Table 2 and Graph 2 (Appendix 1) reveal that the interaction effect of field*major on pre-service teachers' perceptions is significant ($F(2,648)=3.98$, $p=.019$, $\eta^2=.012$). While a significant variance was observed between the perceptions of pre-service teachers majoring in social sciences and those of pre-service teachers majoring in maths and science in relation to pedagogs, no significant variance was observed between perceptions regarding subject teacher trainers and field instructors. In other words, the majors of pre-service teachers are determining factors in pre-service teachers' perceptions of pedagogs. The findings reveal that gender*field and field*major variables each have an interaction effect on pre-service teachers' perceptions of general teacher behaviors indicative of teaching skills.

Table 3. Anova results of pre-service teachers' perceptions of teaching behaviors in the warm-up stage regarding gender, major, and the instructors' subject field

Source	Sum of Squares	Mean Square	df	F	p	Partial Eta Squared
Corrected Model	979.008	89.001	11	7.807	.001	.117
Intercept	98096.204	98096.204	1	8604.616	.001	.930
Gender	54.036	54.036	1	4.740	.030*	.007
Field	581.423	290.711	2	25.500	.001*	.073
Major	50.768	50.768	1	4.453	.035*	.007
Gender*Field	28.641	14.320	2	1.256	.285	.004
Gender *Major	3.919	3.919	1	.344	.558	.001
Field*Major	114.387	57.194	2	5.017	.007*	.015
Gender*Field*Major	31.493	15.747	2	1.381	.252	.004
Error	7387.469	11.400	648			

* $p<.05$.

When the pre-service teachers' perceptions of instructors' behaviors in the warm-up stage are examined, it is observed that there is a significant variance between male and female pre-service teachers ($F(1,648)=4.74$, $p=.030$, $\eta^2=.007$). Female pre-service teachers have more positive perceptions of instructors' teaching behaviors in the warm-up stage. A similar variance is also observed in relation to the subject fields of instructors ($F(2,648)=25.50$, $p=.001$, $\eta^2=.073$). A significant variance is found between pre-service teachers' perceptions of pedagogs and field instructors in favor of pedagogs, and between field instructors and subject teacher trainers in favor of subject teacher trainers. Pedagogs and subject teacher trainers might be displaying warm-up behaviors with similar frequencies. As to the *major* variable, pre-service teachers' perceptions show a significant variance ($F(1,648)=4.45$, $p=.035$, $\eta^2=.007$). This variance was found to be in favor of pre-service teachers majoring in social sciences. The significance of the independent effects of gender, field, and major can show that the gender and major of pre-service teachers and the subject fields of the instructors have an effect on pre-service teachers' perceptions of instructors' warm-up behaviors.

As can be seen in Table 3, the interaction effect of field*major on pre-service teachers' perceptions of instructors' acts in the warm-up stage is significant ($F(2,648) =5.01$, $p=.007$, $\eta^2=.015$). It was found that the pre-service teachers majoring in social sciences, when compared to those majoring in maths and sciences, held more positive

perceptions of pedagogs. However, the perceptions of the two groups of subject teacher trainers and field instructors were similar. This can indicate that the field*major variables have an interaction effect on the pre-service teachers' perceptions of warm-up behaviors in relation to teaching skills.

Table 4. Anova results of pre-service teachers' perceptions of behaviors in the development stage regarding gender, major, and the instructors' subject fields

Source	Sum of Squares	Mean Square	df	F	p	Partial Eta Squared
Corrected Model	3364.616	305.874	11	6.064	.001	.093
Intercept	534586.738	534586.738	1	10598.790	.001	.942
Gender	570.064	570.064	1	11.302	.001*	.017
Field	2301.770	1150.885	2	22.818	.001*	.066
Major	41.782	41.782	1	.828	.363	.001
Gender*Field	134.938	67.469	2	1.338	.263	.004
Gender*Major	2.220	2.220	1	.044	.834	.000
Field*Major	153.366	76.683	2	1.520	.219	.005
Gender*Field*Major	80.689	40.344	2	.800	.450	.002
Error	32684.128	50.438	648			

*p<.05.

Table 4, which presents pre-service teachers' perceptions of instructors' tendencies to display behaviors in the development stage, displays a significant variance in the gender variable in favor of female pre-service teachers ($F(1,648)=11.30$, $p=.001$, $\eta^2=.017$). Female pre-service teachers have greater belief than male pre-service teachers that instructors display behaviors in the development stage. A similar variance is also observed as to instructors' subject fields ($F(2,648)=22.82$, $p=.001$, $\eta^2=.066$). Pedagogs were rated significantly more positively than field instructors, and, subject teacher trainers were rated significantly more positively than field instructors. On the other hand, there is no significant variance between pre-service teachers' perceptions of pedagogs and those of subject teacher trainers, i.e., based on their field of work, they might display behaviors in the development stage with similar frequencies. The significance of the independent effects of gender and field can indicate that the gender of pre-service teachers and the subject fields of instructors have an effect on pre-service teachers' perceptions of the frequency of instructor behaviors displayed in the development stage. On the other hand, no significant variation was found between pre-service teachers' perceptions by major ($p=.363$). Apparently, pre-service teachers majoring in social sciences and those majoring in maths and sciences hold similar opinions.

Table 5. Anova results of pre-service teachers' perceptions of behaviors in the closure stage regarding gender, major, and the instructors' subject field

Source	Sum of Squares	Mean Square	df	F	p	Partial Eta Squared
Corrected Model	952.451	86.586	11	6.382	.001	.098
Intercept	98797.137	98797.137	1	7281.879	.001	.918
Gender	33.825	33.825	1	2.493	.115	.004
Field	669.897	334.948	2	24.687	.001*	.071
Major	44.429	44.429	1	3.275	.071	.005
Gender*Field	28.377	14.189	2	1.046	.352	.003
Gender*Major	16.655	16.655	1	1.228	.268	.002

Field*Major	20.739	10.370	2	.764	.446	.002
Gender*Field*Major	20.240	10.120	2	.746	.475	.002
Error	8791.761	13.568	648			

* $p < .05$.

Table 5 points to a significant variance between pre-service teachers' perceptions of instructors' tendencies to display behaviors in the closure stage according to the subject field of the instructors ($F(2,648)=24.69$, $p=.001$, $\eta^2=.071$). A significant variance between pre-service teachers' perceptions of pedagogs and field instructors was found in favor of pedagogs, and between subject teacher trainers and field instructors in favour of subject teacher trainers. On other hand, no significant variance was found between pre-service teachers' perceptions of pedagogs and of subject teacher trainers. That is, pedagogs and subject teacher trainers displaying behaviors in the closure stage with similar frequencies. Significant variances exist in relation to pre-service teachers' gender ($p=.115$) and major ($p=.071$) variables, which may be evidence that the two variables are determining factors in pre-service teachers' perceptions.

4. Results and Discussion

The most important factor in training qualified teachers is how qualified the instructors training them are because teachers can generally be as much qualified as their trainers. Adediwura and Tayo (2007) claim that students' perception of teachers' knowledge of subject matter, attitude to work, and teaching skills has a significant relationship on students' academic performance. Similarly, Centra and Potter (1980) confirmed that teachers' attitudes are significantly related to students' academic growth or performance.

The present study conducted to identify pre-service teachers' perceptions of their instructors' teaching skills concludes that instructors "frequently" displayed behaviors indicative of teaching skills. It was found that field instructors displayed general teaching behaviors "frequently", while they "sometimes" displayed the behaviors in the warm-up, development, and closure stages of a lesson. In addition, it was determined that pedagogs and subject teacher trainers displayed general teacher behaviors and behaviors in the warm-up, development, and closure stages of a lesson with a similar frequency; on the other hand, they displayed these behaviors at a higher rate than field instructors.

While some consistency is observed between the findings of this study and the related literature, studies with different findings are also encountered. In a study by Şen and Erişen (2002), instructors in teacher training faculties evaluated themselves as highly proficient, yet pre-service teachers evaluated only some of the instructors to be proficient. In another study conducted to evaluate the in-class educational activities of the instructors in the Faculty of Education, it was found that instructors' in-class educational activities were generally nonproficient. In a similar doctoral study by Beyhan (1994), the students rated the qualification of their instructor as "very low". Similarly, according to Kumral (2009) research, teaching staff showed positive behaviors as well as negative behaviors according to students (As cited in Murat, Aslantaş, & Özgan, 2006). In another study, conducted by Köseoğlu (1994) to evaluate the proficiency levels of instructors in the Turkish Republic of Northern Cyprus, the instructors were found to have "low proficiency" in terms of displaying behaviors in introducing the lesson, "moderate proficiency" in presenting the lesson, "low proficiency" in implementing the instructional processes, and "low proficiency" in the assessment phase. The variation in the findings of similar studies may derive from differences in sampling or from the fact that pedagogs and content teaching instructors may have recently developed themselves to a certain degree.

It is concluded in the current study that there is an independent effect of gender, in favor of females, on pre-service teachers' perceptions of general teacher behaviors, and on behaviors in the warm-up and development stages, but not on the behaviors in the closure stage.

These findings are in consistency with those reported in a study by Murat, Aslantaş and Özgen (2006). It was found in this study that pre-service teachers' perceptions of instructors in the faculty of education significantly varied by gender. Similarly, in another study conducted to determine pre-service teachers' perceptions of instructors' democratic behaviors, it was found that female pre-service teachers, when compared to male pre-service teachers, evaluated the instructors more positively (Kaya et al., 2012). In a study by Açıkgöz (1990), pre-service teachers evaluated instructors regarding teacher behaviors generally at the "moderate" level. Significant variances were reported by gender and the subject fields of the instructors in this study as well. On the other hand, Vatthaisong (1983) conducted a study with students in Thailand and found that university

students' perceptions of effective instructor qualities significantly varied by gender, which played a determining factor in opinions regarding instructors.

The fact that the subject field of the instructors has an independent effect on the pre-service teachers' perceptions in terms of all the variables can be regarded as the most striking finding of the study. In other words, with this study, it was found that the subject field of instructors (pedagogs, subject teacher trainers, and field instructors) is a determining factor in the exhibition of behaviors reflecting teaching skills. This finding was found to be consistent with many of the research results in the related literature. Gül (2010) inquired into perceptions of students and found that the students in institutions where pedagogical formation courses were offered had evaluated the performance of instructors significantly more favorably, when compared to those in other institutions. As the majority of the instructors offering pedagogical formation courses are pedagogs and subject teacher trainers, the consistency between the results of the two studies is considered important. Vatthaisong (1983) similarly concluded that the subject field of the instructors is a determining factor in university students' perceptions of an effective instructor. In another study by Akgül (1994), it was found that pre-service teachers who had willingly chosen the teaching profession evaluated instructors more favorably. In yet another study conducted in Turkey on nursing students, instructors' communication skills proved significantly different according to field of subject (Keçeci & Taşocak, 2009). In a study by Saylan and Uyangör (1998), the participant students perceived pedagogs to be more proficient in their profession than instructors of field knowledge and general culture. There are still other studies in the literature indicating that field of subject influences the evaluation of instructors (Uzel et al., 2003; Sürel, 2010).

Another conclusion derived from the current study was that the major of pre-service teachers whose perceptions were investigated did not have an effect on their perception of general teacher behaviors, and the behaviors in the development and closure stages, but only impacted that of the behaviors in the warm-up stage.

The present study concluded that the interaction effect of the gender*field variables on pre-service teachers' perceptions of general teacher behaviors were determining factors. Female pre-service teachers, when compared to male pre-service teachers, evaluated pedagogs and field instructors more favorably in terms of general teacher behaviors. That is, the pre-service teachers' perceptions of general teacher behaviors vary by pre-service teachers' gender and the field of the instructors. In other words, pre-service teachers' gender and the instructors' field had a combined impact on pre-service teachers' perceptions of general teacher behaviors.

The results also revealed an interaction effect of the field*major variables upon pre-service teachers' perceptions of general teacher behaviors. Pre-service teachers majoring in social sciences, when compared with those majoring in maths and sciences, evaluated pedagogs' general teacher behaviors more positively. Briefly, the field of the instructors and the majors of the pre-service teachers is a determining factor on the pre-service teachers' perceptions of general teacher behaviors.

Moreover, the present study revealed a combined effect of field*major variables on pre-service teachers' perceptions of teacher behaviors in the warm-up stage. Similar to the evaluation of general teacher behaviors, pre-service teachers majoring in social sciences, when compared to those majoring in maths and sciences, evaluated pedagogs' teacher behaviors in the warm-up stage more positively.

In fact, pre-service teachers in teacher training programs aim to develop their professional skills and attitudes toward the profession (Bümen & Ercan Özaydın, 2013), so it is essential that they not only succeed in passing certain exams, but also learn to develop strategies in organizing effective lessons (Bembenutty, 2009). As Açıkan and Saydan (2009) also claim of the most important variables accounting for the academic quality of instructors is instructors' teaching competence.

Within this framework, teaching skills can be regarded as one of the selection criteria in the recruitment process of individuals to be assigned as instructors. To develop instructors' teaching skills, a continuous, systematic and objective evaluation system of instructors by students can be devised. Workshops can also be organized at universities to develop instructors' teaching skills.

Given that behaviors indicative of teaching skills are displayed less by field instructors, when compared to pedagogs and subject teacher trainers, training courses can be offered to field instructors to develop or enhance their teaching skills. In fact, the requisite courses entitled "Development and Learning" and "Planning and Assessment in Instruction" for pre-service teachers imposed by the Council of Higher Education since 2000-2001 are essential but insufficient.

To be able to make more informed generalizations, this study can be replicated with the participation of a more comprehensive study group of pre-service teachers from different universities. In addition, the impact of such

factors as academic titles and professional ranking of the instructors on pre-service teachers' perceptions can also be investigated. To what extent teacher trainers are taken as models and the impact of these trainers upon pre-service teachers' teaching skills and professional attitude can be examined within the scope of an official or hidden program. Finally, qualitative research methods can be resorted to in order to perform in-depth descriptive studies to investigate the differences in the teaching skills of instructors from different fields. In addition, the cross validation of the data collection tool used in this study can be examined in a similar sample.

References

- Açan, B., & Saydan, R. (2009). The Evaluation of Academic Quality Expectation of the University Teachers: The Case of Kafkas University Faculty of Economics and Administrative Sciences. *Atatürk University, Social Sciences Institute Journal*, 13(2), 225-253.
- Açıkgöz, K. (1990). *Evaluation of the instructors of university students* (Unpublished research report). Malatya: İnönü University.
- Ada, S., & Baysal, Z. N. (2013). *Pedagogik-Androgojik formasyon ve Türkiye'de öğretmen yetiştirme*. Ankara: Pegem Akademi.
- Adediwura, A. A., & Tayo, B. (2007). Perception of teachers' knowledge, attitude and teaching skills as predictor of academic performance in Nigerian secondary schools. *Educational Research and Reviews*, 2(7), 165.
- Akgül, H. (1994). *Eğitim Fakültesindeki öğretim elemanları ve öğrencilerin ideal bir öğretim elemanının nitelikleri hakkındaki görüşleri ile kendi kurumlarındaki öğretim elemanlarının bu niteliklere uygunluklarının karşılaştırılması* (Yayınlanmamış Doktora Tezi). İzmir: Dokuz Eylül Üniversitesi Sosyal Bilimler Enstitüsü.
- Aleamoni, L. M. (1981). *Students' ratings of instruction*. In J. Millman (Eds.), *Handbook of teacher evaluation*. Beverly Hills: Sage.
- Anderson, J. C., & Gerning, D. W. (1984). The effect of sampling error on convergence, improper solutions, and goodness-of-fit indices for maximum likelihood confirmatory factor analysis. *Psychometrika*, 49, 155-173. <https://doi.org/10.1007/BF02294170>
- Arubayi, A. E. (1987). Students' evaluations of instruction in higher education: A review. *Assessment and Evaluation in Higher Education*, 11, 1-10. <https://doi.org/10.1080/0260293860110101>
- Ausubel, D. P., & Robinson, F. G. (1969). *An introduction to educational psychology*. Ny: Holt, Rinehartand Winston Inc.
- Bembenutty, H. (2009). Teaching effectiveness, course evaluation, and academic performance: The role of academic delay of gratification. *Journal of Advanced Academics*, 20(2), 326-355. <https://doi.org/10.1177/1932202X0902000206>
- Beyhan, N. (1996). *İdeal bir öğretim elemanının nitelikleri* (Yayınlanmamış Doktora Tezi). İzmir: Dokuz Eylül Üniversitesi Sosyal Bilimler Enstitüsü.
- Bilen, M. (2006). *Plandan uygulamaya öğretim*. Ankara: Anı Publishing.
- Borich, G. D. (2014). *Etkili öğretim yöntemleri* (Translation editor: M. B. Acat). Ankara: Nobel Academic Publishing.
- Brown, D. J., & Koenig, H. F. (1993). Applying total quality management to business education. *Journal of Education for Business*, 68(6), 325-330. <https://doi.org/10.1080/08832323.1993.10117636>
- Bümen, N., & Ercan Özyayın, T. (2013). Changes on teacher self-efficacy and attitudes towards teaching profession from candidacy to induction. *Education and Science*, 38(169), 109-125.
- Büyüköztürk, Ş. (2008). *Sosyal bilimler için veri analizi el kitabı: İstatistik, araştırma deseni, SPSS uygulamaları ve yorum*. Ankara: Pegem Akademi.
- Byrne, B. M. (2001). *Structural equation modeling with Amos: Basic concepts, applications and programming*. Hillsdale, NJ: Erlbaum.
- Çelikten, M., Şanal, M., & Yeni, Y. (2005). Öğretmenlik mesleği ve özellikleri. *Erciyes Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 19(2), 207-237.
- Centra, J. (1993). *Reflective faculty evaluation*. San Francisco: Jossey-Bass.

- Centra, J. A., & Potter, D. A. (1980). School and teacher effects: An interrelational model. *Review of Educational Research*, 50, 273-291. <https://doi.org/10.3102/00346543050002273>
- Cohen, P. A. (1980). Using student ratings feedback for improving college instruction: A metaanalysis of findings. *Research in Higher Education*, 13, 321-341. <https://doi.org/10.1007/BF00976252>
- Cole, D. A. (1987). Utility of confirmatory factor analysis in test validation research. *Journal of Consulting and Clinical Psychology*, 55, 1019-1031. <https://doi.org/10.1037/0022-006x.55.4.584>
- Dalgıç, G. (2010). The validity and reliability of the instructors' performance evaluation scales. *Electronic Journal of Social Sciences*, 32, 92-105.
- Demirel, Ö. (1999). *Planlamadan değerlendirmeye öğretme sanatı*. Ankara: Pegem Akademi Publications.
- Demirel, Ö. (2011). *Eğitimde program geliştirme*. Ankara: Pegem Akademi Publishing.
- Erdem, A. R., & Sarıtaş, E. (2006). Sınıf öğretmenliği öğrencilerinin öğretim elemanlarının davranışlarının demokratikliğine ilişkin algıları: PAÜ örneği. *Selçuk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 16, 526-538.
- Ergün, M., Duman, T., Kıncal, R. Y., & Arıbaş, S. (1999). *İdeal bir öğretim elemanının özellikleri*. Retrieved January 15, 2015, from <http://www.egitim.aku.edu.tr/ergrup1.htm>
- Gökçe, E. (2002). Views of elementary school students with regard to teachers' efficiency. *Ankara University Educational Sciences Faculty Journal*, 1-2, 111-112.
- Gül, H. (2010). Evaluation of lecturer performance depending on student perception in higher education. *Education and Science*, 35(158), 158-168.
- Heck, R. H. (2009). Teacher effectiveness and student achievement: Investigating a multi level cross-classified model. *Journal of Educational Administration*, 47(2), 227-249. <https://doi.org/10.1108/09578230910941066>
- Hu, L., & Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensivity to under parameterized model misspecification. *Psychological Methods*, 3, 424-453. <https://doi.org/10.1037/1082-989X.3.4.424>
- Jöreskog, K., & Sörbom, D. (2006). *Interactive LISREL 8: Structural equation modeling with the SIMPLIS command language*. Chicago, IL: Scientific Software International.
- Joyce, B., Weil, M., & Calhoun, E. (2004). *Models of teaching*. Boston: Pearson Education.
- Kaya, H. İ., Taşdan, M., Kop, Y., & Metin, M. (2012). The perceptions of the prospective teachers about the democratic attitudes of the teaching staffs (city of Kars case). *Pegem Journal of Education and Instruction*, 2(1), 39-49.
- Keçeci, A., & Taşocak, G. (2009). Communication skills of faculty's: An example of a college of nursing. *Dokuz Eylül University Nursing Vocational College E-Journal*, 2(4), 131-136.
- Kline, P. (1994). *An easy guide for factor analysis*. U.K. Routledge.
- Koçak, R. (2006). The Validity and Reliability of the Teachers' Performance Evaluation Scale. *Educational Sciences Theory and Practice*, 6(3), 709-808.
- Köseoğlu, K. (1994). *İlköğretime öğretmen yetiştiren kurumlarda öğretim elemanı yeterliklerinin değerlendirilmesi* (Yayınlanmamış Doktora Tezi). Ankara Üniversitesi Sosyal Bilimler Enstitüsü, Ankara.
- Kumral, O. (2009). Prospective teachers' perceptions of instructors' behaviors. *Pamukkale University Journal of Education*, 25(25), 92-102.
- Murat, M., Aslantaş, H. İ., & Özgan, H. (2006). Assessment of instructors with regard to instructional activities in classrooms. *Gazi University Journal of Gazi Educational Faculty*, 26(3), 263-278.
- Murray, H. G. (1983). Low-Interence classroom teaching behaviors and student rating of college teaching effectiveness. *Journal of Educational Psychology*, 75, 138-149. <https://doi.org/10.1037/0022-0663.75.1.138>
- Özçelik, D. A. (2010). *Eğitim programları ve öğretim*. Ankara: Pegem Akademi Publishing.
- Özden, Y. (1999). *Eğitimde dönüşüm eğitimde yeni değerler*. Ankara: Pegem Akademi Publications.
- Özgüngör, S. (2013). Turkish adaptation of student evaluations of educational quality questionnaire and determination of teaching dimensions defining efficient college instructors. *Education and Science*, 38, 79-94.

- Özmen, F., Aküzüm, C., Tan, Ç., Koçoğlu, E., & Demirkol, M. (2014). Examining content knowledge competencies of lecturers in terms of some variables. *NWSA-Education Sciences*, 9(2), 217-233. <https://doi.org/10.12739/nwsa.2014.9.2.1c0615>
- Parpala, A., & Lindblom-Ylänne, S. (2007). University teachers' conceptions of good teaching in the units of high-quality education. *Studies in Educational Evaluation*, 33, 355-370. <https://doi.org/10.1016/j.stueduc.2007.07.009>
- Ramsden, P. (1991). A performance indicator of teaching quality in higher education: The course experience questionnaire. *Studies in Higher Education*, 16(2), 129-150. <https://doi.org/10.1080/03075079112331382944>
- Şahan, H. H. (2016). Developing a scale for perceptions of teaching skills. *Journal of Research in Education and Teaching*, 5(2), 99-110.
- Saylan, N., & Uyangör, N. (1998). Determination of Necatibey School of education's teaching staff's professional qualifications according to students' opinions. *Balıkesir University Social Sciences Institute Journal*, 1(2), 35-67.
- Seferoğlu, S. S. (2004). Öğretmen yeterlikleri ve mesleki gelişim. *Bilim ve Aklın Aydınlığında Eğitim*, 58, 40-45.
- Seldin, P. (1984). *Changing practices in faculty evaluation*. San Francisco: Jossey-Bass.
- Şen, H. Ş., & Erişen, Y. (2002). Effective teaching specialties of teacher trainers working at teacher training institutions. *Gazi University Educational Faculty Journal*, 22(1), 99-116.
- Sönmez, V. (2008). *Program geliştirmede öğretmen elkitabı*. Ankara: Anı Publishing.
- Sümer, N. (2000). Yapısal eşitlik modelleri: Temel kavramlar ve örnek uygulamalar. *Türk Psikoloji Yazıları*, 3(6), 49-74.
- Sürel, S. (2010). Turkish adaptation of student evaluations of educational quality questionnaire and determination of teaching dimensions defining efficient college instructors. *NWSA-Education Sciences*, 5(3), 1226-1242.
- Swanson, A. R., & Sisson, J. D. (1971). The development, evaluation and utilization of a departmental faculty appraisal system. *Journal of Industrial Teacher Education*, 9, 64-79.
- Tezbaşaran, A. A. (1996). *Likert tipi ölçek geliştirme kılavuzu*. Ankara, Turkish Psychology Association Publications.
- Uzal, G., Erdem, A., Açıkgöz, F., & Eker, S. (2003). Öğretim elemanlarının mesleki ve teknik eğitimdeki özel öğretim bilgisi yeterlikleri. *Mevzuat Dergisi*, 6, 72.
- Uzel, D., & Özdemir, E. (2010). Investigation of elementary mathematics teacher candidates' opinions towards teaching staff features. *Mehmet Akif Ersoy University Educational Faculty Journal*, 20, 122-152.
- Vatthaisong, S. C. (1983). *Study of thai undergraduate students perceptions of characteristics instructors. Abstracts International. Transporter: Akgöl, H. (1994). Eğitim fakültelerindeki öğretim elemanları ve öğrencilerin ideal bir öğretim elemanının nitelikleri hakkındaki görüşleri ile kendi kurumlarındaki öğretim elemanlarının bu niteliklere uygunluklarının karşılaştırılması* (Unpublished Ph.D. dissertation). İzmir: Dokuz Eylül University, Social Sciences Institute.

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